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TELECOMMUNICATIONS POLICY,
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No. 173

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BRIEFS

MOZAMBIQUE, 'TASS' AGREEMENT--The Mozambique news agency, AIM, and TASS concluded a cooperation agreement in Moscow yesterday. Under the terms of the protocol, which was signed by the Mozambique information minister, Jose Luis Cabaco, and the TASS director general, Sergey Losev, the two countries are expected to increase news services and improve the technical means by which news exchanges will be effected more rapidly. The agreement covers the use of satellite channels between Maputo and Moscow in the distribution of news and the training of professional personnel in the technical sector. [Excerpt] [LD110544 Maputo Domestic Service in Portuguese 0430 GMT 10 Jul 81]

CSO: 5500/2253

INTER-ASIAN AFFAIRS

BRIEFS

'KYODO' LINK WITH 'OANA'--Tokyo, 9 Jul (ANTARA)--General manager of ANTARA news agency August Marpaung stopped over in Tokyo on his way back home from European and American working tours and met Indonesian Ambassador Sayidiman Suryohadiprojo at the Indonesian Embassy Tuesday [7 July]. Being president of the Organization of Asian News Agencies (OANA), Marpaung visited KYODO news agency the same day, during which he was received by KYODO's President Takeiji Watanabe and staff. The return of KYODO to OANA was taken as a topic of discourse between Marpaung and Watanabe. During the meeting Watanabe expressed readiness of KYODO to rejoin OANA before the organization holds its general assembly meeting in Kuala Lumpur next November. He said his news agency will send a representative to attend the Kuala Lumpur meeting, expected to be attended by 26 Asian news agencies. Marpaung, who is also director of the National Development Information Office (NDIO), will visit Hong Kong before returning home. [Text] [BK121039 Jakarta ANTARA in English 0833 GMT 9 Jul 81]

CSO: 5500/2253

HOUSE PASSES CHANGES TO BROADCASTING, TV LEGISLATION

Sydney THE SYDNEY MORNING HERALD in English 6 Jun 81 p 21

[Text]

The Government's controversial amendments to the Broadcasting and Television Act were passed in the House of Representatives yesterday with last-minute changes by the Minister for Communications, Mr Sinclair.

The changes were in response to eleventh hour representations by the Herald and Weekly Times group and the Federation of Australian Radio Broadcasters.

The new bill was first introduced on Wednesday.

It narrowed the "public interest" factors which the Australian Broadcasting Tribunal can take into account when deciding to grant a broadcasting licence.

It also introduced supplementary licences for regional radio broadcasters.

In addition, the new bill changed existing provisions for ownership and control of television and radio stations. The key change is that companies buying shares in TV stations no longer have to win prior approval from the tribunal.

But this last change had run into heated opposition from the Herald and Weekly Times group, the Labor Party claimed yesterday.

The group argued that its four television stations were too vulner-

able to takeover without the protection of prior tribunal approval.

Mr Sinclair's last-minute amendments restore the need for prior approval of takeovers of these TV interests.

The protection extends only to July, 1983 and is limited to companies which were protected by a "grandfather clause" in the original 1965 legislation.

The Opposition launched a strong attack on the amendments in Parliament.

Two Labor frontbenchers, Mr John Dawkins and Mr Barry Jones claimed the changes in the public interest provisions were mainly to "get Rupert Murdoch off the hook".

Mr Murdoch's application for ATV-10 in Melbourne was rejected by the broadcasting tribunal on public interest grounds.

Mr Murdoch is appealing against the broadcasting tribunal's decision. Government of showing a com-

Backing for ABC

THE OPPOSITION has strongly defended "that great institution" the Australian Broadcasting Commission, saying stringent financial restrictions proposed by the Fraser Government threatened the ABC's ability to comply with its charter.

Introducing debate on the issue as a matter of public importance, the Opposition's Senate leader, Senator Button, accused the

complete lack of broadcasting policy, and a strong disrespect for the commission and its many listeners and viewers.

He also criticised "Mr Fraser's hand-picked broadcasting commissioners" for their "appalling decision-making."

"The Fraser Government's funding policy should not be allowed to destroy the integrity and hard work of the loyal, hard-working and talented members of the ABC production team," he said.

Senator Button pointed to the "steady decline" in Federal funding for the commission since 1975, including a 10 per cent cut for the new financial year.

He was particularly critical of the "finance ministry's connivance" in allowing the ABC to accrue "running public debts" worth \$7 millions.

In reply, the Aboriginal Affairs Minister, Senator Baume, denied that the ABC had in any way been "singled out" for excessive financial constraints.

He argued that the proper time to argue the ABC's case for greater Commonwealth funding was after the Budget was announced.

"Then we will have the true facts on the table. I don't believe Senator Button can say the commission is hard done by when the estimates for the ABC are still being considered."

\$11 MILLION TO BE SPENT MODERNIZING SATELLITE STATION

Canberra THE AUSTRALIAN in English 15 Jun 81 p 16

[Article by Robin Bayes]

[Text]

THE Overseas Telecommunications Commission will spend \$11 million in a major updating of its satellite earth station at Moree, in western NSW.

The move is part of a bid to handle the high telecommunication growth rate between Australia, North America and South-East Asia.

Work has already started on the project, scheduled for completion late this year.

The major element of the Moree project is the construction of a second antenna, which exemplifies the new generation of earth stations incorporating advanced engineering and greatly increased telecommunications capacity.

Moree 2 will provide the extra capacity necessary to cope with traffic growth and will also provide route diversity.

The earth station will operate to the secondary Intelsat satellite in the Pacific Ocean region, providing two separate telecommunications paths between Australia and North America, Japan and South-East Asia.

The earth station has been designed to accommodate dual polarisation - a method of frequency re-use which makes more efficient use of the frequency spectrum by almost doubling its capacity.

The nine new-era Intelsat V satellites being launched over the next two years will incorporate

the dual polarisation technique.

These satellites have double the circuit capacity of the present Intelsat IV with 12,000 phone circuits plus two television channels.

It will also have a slightly larger dish-shaped antenna than Moree 1 (32m diameter as against 27.5m) and will weigh about 240 tonnes - about one-third less than the OTCS Ceduna 2 opened 12 months ago.

Following the design principle employed in Ceduna 2, the antenna is mounted on a track above the building containing the associated electronic equipment.

Among the other technical features of Moree 2 is a beam wave guide - a tubular apparatus which enables the incoming signal to be reflected by a group of reflective metal surfaces into the equipment room below the antenna.

The received signal has to be amplified more than a million times to compensate for the loss of strength during its 72,000km journey through space.

The additions to the earth station building will include an extension to the equipment room and adjoining facilities for staff training, storage and testing of equipment and power/air conditioning services.

To cater for the large number of visitors to the station, a 35-seat auditorium plus a display and viewing area will be incorporated.

The existing Moree 1 antenna, which opened in 1968, is to be updated to meet the new technical standards of the Intelsat system.

CSO: 5500/7538

INDUSTRY SAYS TELECOM IS BEST SUITED TO CARRY CABLE TV

Canberra THE AUSTRALIAN in English 15 Jun 81 p 16

[Text]

TELECOM should act as the "common carrier" for any cable TV network and the local electronics manufacturing industry should be heavily involved in the design and implementation of the system, according to an electronics submission to the Federal Government.

The Australian Electronics Industry Association (AEIA) submission says Telecom is the authority most qualified to provide the program distribution networks.

The AEIA submission asks the Government to plan the introduction of any cable television network sufficiently far ahead to enable the local telecommunications industry to design the system's equipment, cables and interface requirements.

"We don't want the sort of fiasco that has happened on so many occasions in the past where decisions on major national projects have

been left until the last moment, followed by a panic to buy the systems and equipment off the shelves overseas to get the project up and working overnight," said Mr Bruce Goddard, chairman, AEIA telecommunications division.

"The major manufacturers have installation and service arrangements throughout the country which could be used to install and service the additional equipment needed for cable television."

Mr Goddard called on the Government to set up a high level technical committee to design and establish the new system which would include representatives from the telecommunications industry.

"The most satisfactory way for the end user to take full advantage of the new system will be if local manufacturers are involved in the design and production of the equipment, in the first instance, between the Telecom end of the system and the household TV receiver."

CSO: 5500/7538

FRENCH COMPANY TO SUPPLY EQUIPMENT FOR TELECOM'S AUSTPAC

Canberra THE AUSTRALIAN in English 23 Jun 81 p 25

[Text]

TELECOM has announced that SESA of France, in association with Standard Telephones and Cables Pty Ltd, has been selected to supply the equipment for Austpac.

Austpac is Telecom's packet switched service, which will be launched in December 1982.

Mr Greg Crew, Telecom's general manager of commercial services, said several excellent tenders had been received offering Telecom a range of choices.

SESA, the Societe D'Etudes des Systemes D'Automation, which was wholly responsible for the design and installation of the French Transpac system, had best met the combination of requirements set by Telecom in its specification, Mr Crew said.

"Austpac will usher in a new era in data communications in Australia," he said.

"It will offer customers a nationwide public switched data service based on the latest field-proven technology."

PLANNING

"It will incorporate switching, transmission and network intelligence designed to solve many existing and emerging data transfer problems."

"Electronic office systems now becoming a feature of many offices and corporate message systems are among the applications for which Austpac will be particularly suited," Mr Crew said.

"Businesses which have a requirement to transmit small amounts of data at rates between 300 and 48,000 bits per second will find Austpac meets their needs efficiently and cheaply."

Benefits from using Austpac are said to include high performance and reliability, internationally accepted standards for interconnection of terminals and computers and interconnection with packet switched services in other countries.

"Austpac customers can expect to see real reductions in their charges for switched data services," Mr Crew said.

"Tariffs will be announced before the end of this year to ensure future users have plenty of time to incorporate Austpac into their network planning."

Austpac charges will be distance independent, Mr Crew emphasised.

"This is a great step forward."

"No longer will smaller data users in remote areas be disadvantaged by their isolation because Austpac tariffs will be based mainly on usage time and data volume, together with an annual rental," he said.

Later this year, Telecom will set up an Austpac user group which will include future users who intend to employ the service within two years of its introduction.

The purpose of the group will be to discuss matters such as tariffs and billing, higher level protocols and technical aspects related to interfacing with the Austpac network.

Mr Crew also announced that when Telecom's Digital Data Service (DDS) is launched in December 1982, many of the data link charges will be reduced, especially in the long haul area.

"DDS will become available in 18 months' time. But we believe it is important our present and future customers be given as much notice as possible of the prices we will charge and also the facilities which will be offered."

"The reduced charges are possible because Telecom will be making maximum use of the latest digital technology."

"There will be reductions of up to 70 per cent on some routes," he said.

For example, a 2400bps link between Sydney and Perth costs \$28,644 a year on Datel.

This will cost only \$9192 on DDS — a reduction of 68 per cent.

A 4800 bps Melbourne-Brisbane link costing \$28,586 a year on Datel will be reduced on DDS by 48 per cent to \$13,704.

The cut in tariffs using DDS will largely be due to the reduced effect of distance.

Mr Crew pointed out that links within metropolitan areas would generally be cheaper on Datel, but DDS would offer other benefits.

DDS should not be viewed as merely a replacement for Datel, he said.

"While compatible with corresponding Datel services, the DDS network has been specially designed to accept the new generation of terminal equipment now appearing on the international scene.

"And DDS will also offer customers new facilities not available on Datel.

"These will combine both transmission and multiplexing.

"And have been designed to solve the problems often experienced by operators of large teleprocessing networks," he said.

FLEXIBILITY

Mr Crew added: "In addition to the new facilities and cost advantages on many routes, DDS will also offer higher reliability and performance, greater networking flexibility and faster provision of service than is currently possible with Datel.

"Initially the new service will be available in, and will link, all capital cities, but it will be extended as quickly as necessary to meet customer demand in other areas."

Telecom will begin accepting orders for DDS links in June 1982.

Datel will not be withdrawn when Austpac and DDS are introduced next year, Mr Crew emphasised.

CSO: 5500/7538

PLANS TO IMPROVE COMMUNICATIONS SERVICES TOLD

Dacca THE BANGLADESH OBSERVER in English 27 May 81 p 8

[Text] Chittagong, May 26--The telephone exchange in Chittagong city will have the capacity of 25,000 telephone lines by August this year.

This was disclosed by the Posts, Telegraphs and Telephones Minister Mr Moyeedul Islam at the inaugural ceremony of 3000 line Salimpur Automatic Telephone Exchange of Chittagong City this morning. The inaugural ceremony was addressed, among others, by the Deputy Minister, Mrs Quamrunnagar Jafar and Chairman of T and T Board, Mr A.B.M. Taber and the General Manager of Chittagong Telecommunication Region Mr Abul Kashem. The Minister said that the present four telephone exchanges including Salimpur Exchange have got the capacity of 20,000 telephone lines. The central telephone exchange of Chittagong will have 5000 lines more by August this year, he added.

Mr Moyeedul Islam hoped that the T and T would be able to meet fully the demands of telephones of this commercial city after the commissioning of all these new lines.

Referring to the Subscribers Trunk Dialling (STD) lines, Mr Islam said that the STD line between Chittagong and Dacca would be doubled shortly for the convenience of subscribers. There are at present 72 STD lines between Chittagong and Dacca, he added.

The Minister said that an international telephone exchange would be constructed at a total cost of Taka three crore. The government has already placed order abroad for the supply of machineries for this exchange, he added.

About the microwave Mr Islam said that Chittagong-Dacca microwave will be further improved in next one year with the help of Japanese Government to facilitate the relay of television programme and smooth STD telephone service. The Bethunia Satellite Station will also be modified and improved, he added.

He lauded the T and T officials for the successful commissioning of Salimpur Telephone Exchange with the materials and parts manufactured in Tongi Telephone Shilpa Sangtha and Khulha Cable Sangtha.

The Deputy Minister, Mrs Quamrunnagar Jafar in her speech underscored the need for modern telecommunication service for the commercial and economic development of the country.

The Salimpur Telephone Exchange has been constructed at a total cost of Taka 1.50 crore.

CSO: 5500/7128

BANGLADESH

BRIEFS

GROUND SATELLITE STATION--Dacca, 20 Jun--A ground satellite station for surveying resources in South-East Asia will be set up in Bangladesh, State Minister for Science and Technology Dr R.A. Ghani said today. The official news agency BSS quoted Dr Ghani as saying that Bangladesh and a French Government-sponsored company, Society for European Propulsion (SEP), would formally sign agreement for the 17-million-US-dollar project here next week. Construction will start next month and will be completed in three years, the Minister said. NAB/REUTER [Text]
[Rangoon THE WORKING PEOPLE'S DAILY in English 22 Jun 81 p 7]

CSO: 3500/4902

BRIEFS

'PTI' HINDI SERVICE--Bombay, 25 Jun (PTI)--The PRESS TRUST OF INDIA has launched a Hindi feature service which would make available to Hindi newspapers and periodicals indepth articles on a wide range of subjects. The new service, the first issue of which publishable tomorrow, would be in addition to the English feature service the agency started less than a year ago. The Hindi feature service would fill a "long felt void," said the Union deputy minister for information and broadcasting, Miss Kumud Joshi who noted that India did not have a service of this kind. In a message welcoming the launching of the new service, Miss Joshi said: "It is necessary that increasing attention should be paid to the needs of the small and medium newspapers, especially the language newspapers." [Text] [BK070857 Delhi NATIONAL HERALD in English 27 Jun 81 p 5]

CSO: 5500/7145

BRIEFS

EARTH STATIONS--Bandung, 10 Jul (ANTARA)--"Perusahaan Umum Telekomunikasi" (PERUMTEL) is currently preparing the construction of 75 additional small earth stations (SEK) for installation in various areas in the country. PERUMTEL's public relations chief Musyafri Effendie told ANTARA Friday [10 July] that the new SEKs will support the operations of the second generation Palapa satellite system. At the same time it will constitute the realization of the government's equalization program in the sector of telecommunications. The new SEKs are expected to be completed in the first quarter of 1982. The distribution of the SEKs will be as follows: [all figures as received] 7 in Aceh; 7 in Riau; 2 in west Sumatra; 3 in Jambi; 1 in south Sumatra; 3 in Bengkulu; 1 in Lampung; 5 in Nusatenggara Timur; 15 in west Kalimantan, 1 in south Kalimantan; 3 in central Kalimantan; 5 in south Sulawesi; 3 in southeast Sulawesi; 2 in central Sulawesi; 2 in north Sulawesi; 6 in Maluku; and 5 in Irian Jaya. Five SEKs will be kept in reserve. [BK121039 Jakarta ANTARA in English 0749 GMT 10 Jul 81]

IONOSPHERE OBSERVATION STATION--An ionosphere observation station with an observation radius of 1,000 kilometers constructed by the National Aviation and Space Agency [LAPAN] at the southern coasts of West Java, will be completed shortly. The station is equipped with two receivers and transmissions able to function 24 hours daily. The station will be able to detect the horizontal movement of the ionosphere at an altitude of 100 kilometers which often affects radio communications. The equipment installed in this station was constructed by two Indonesian experts with cooperation of the Dutch Meteorological Institute under a technical cooperation agreement. [BK121039 Jakarta Domestic Service in Indonesian 1200 GMT 10 Jul 81]

TELEPHONE LINK--Some 88 Indonesian towns spreading from Sabang in north Sumatra to Merauke in Irian Jaya up to Dili in east Timor can now be linked up through the direct long distance telephone network. Besides the provincial capitals, several subdistrict towns can also be reached by automatic telephone connections. The Telecommunications Corporation is now making preparations for the installation of some 80,000 telephone lines which is expected to be completed by the end of the current third 5-year development plan. [BK121039 Jakarta Domestic Service in Indonesian 1200 GMT 10 Jul 81]

BRIEFS

RAILWAY TELECOM SYSTEM--Multan, June 29: A Rs. 72.33-crore project has been approved by the Railway Board to streamline the Railway telecommunication and signalling system. A 940 channelwave H. F. system will be installed on the main line between Rawalpindi and Karachi. VHF radios will also be provided in 500 railway engines on the branch lines of Kotri, Habib Kot, Sukkur, Jacobabad and Kot Addu. This arrangement will cover a stretch of over 2000 kilometres. Work has already started on the project which is aimed at running trains strictly on schedule. [Text] [Lahore THE PAKISTAN TIMES in English 30 Jun 81 p 6]

CSO: 5500/4585

PEOPLE'S REPUBLIC OF CHINA

PRC-DESIGNED SHORT BASELINE MICROWAVE INTERFEROMETER DEVELOPED

Shijiazhuang HEBEI RIBAO in Chinese 6 May 81 p 1

[Text] Recently, the China Electronic Technology Institute held a conference in Shijiazhuang City to assess the principal equipment of the short baseline microwave interferometer system. Over 100 representatives, engineers and technicians attended the conference from related organizations of the National Defense Scientific and Technological Commission and the State Council National Defense Industry Office and from related units subordinate to the industrial ministries and the Liberation Army. Deputy Provincial Governor Li Feng addressed the conference.

With a deep sense of responsibility and strict scientific approach those participating in the conference tested the major technical specifications of the short baseline microwave interferometer and assessed the reliability of the equipment. The technical construction of the equipment and documented data were examined and assessed. The equipment passed appraisal because the conference felt that the major technical specifications of this equipment had reached design requirements. It performed satisfactorily and was stable, reliable, easy to use and maintain. The advance level of the same kind of foreign equipment was reached. The conference recommended that the system be test used. The short baseline microwave interferometer is principally used for tracking flying aerial targets. It can independently accomplish target acquisition, tracking, speed estimation and position fixing. It can also be used for multiple target tracking, air traffic control, measuring miss distance, determining the initial velocity and trajectory of artillery, aerial rescue and many measuring functions in astronomy and meteorology.

The successful development of this short baseline interferometer equipment can be attributed to the labor, ingenuity and wholehearted determination of the North China Radio Equipment Institute. In the course of this project, this institute put forth much of the technological effort, overcame many difficulties and technical problems and made this new contribution to PRC's scientific and technological development.

CSO: 5500/4004

SOPHISTICATED MICROWAVE SYSTEM DEVELOPED

Shijiazhuang HEBEI RIBAO in Chinese 23 May 81 p 1

[Text] The PRC-designed short baseline microwave interferometer equipment has been successfully developed by the North China Radio Equipment Institute. This equipment is a relatively large-scale, technically sophisticated systems project principally used to track overhead targets.



A portion of the antenna array at the test facility

CSO: 5500/4003

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

TIME SIGNAL STATION--Xian, 30 Jun (XINHUA)--Construction of the time service station, which was developed by China and which uses short wave to transmit BPM standard time and standard frequencies has been completed at the Chinese Academy of Sciences Observatory in Shaanxi. The station will be put into operation beginning 1 July with the State Council's approval. At the same time, transmission of BPV time service will be terminated. The completion and operation of this time service station marks a new development of China's time service technology. The BPM time signals to be transmitted throughout the country by the station include signals of world time, coordination time and scientific time. These signals can be accurately received throughout the country and along the coastal areas around the clock. [OWO91319 Beijing XINHUA Domestic Service in Chinese 1522 GMT 30 Jun 81]

ELECTROOPTICAL COMMUNICATIONS--A 3.2-kilometer electrooptical signal communication line--the first of its kinds ever installed by China's electric power industry--has been successfully put into trial operation in Nanjing. It was tested by the Power Industry Ministry's scientific and technological committee at a meeting held in Nanjing on 3 July to examine its communication quality and efficiency and its quality passed examination. [OWO91319 Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 4 Jul 81]

TRANSMISSION LINE LINKS--Wuhan, 5 Jul (XINHUA)--The first 220,000-volt power transmission line linking the new power station at the Gezhouba water control project on the Yangtze River with the central China power grid has been completed. Electricity from the new power station will begin flowing soon through this 117-kilometer-long line. When all the generating units are put into service, seven more transmission lines and two substations will be built to cope with the demand. The Gezhouba project, now still under construction, includes a big dam, ship locks, sluice gates and big power houses. One of the biggest engineering feats in the world, the project has aroused such interest that specialists from many parts of the world have visited the site. [Text] [OWO91319 Beijing XINHUA in English 0756 GMT 5 Jul 81]

CSO: 5500/2253

INTERNATIONAL AFFAIRS

BRIEFS

'MTI' AGREEMENT WITH 'TANJUG'--Budapest, 10 Jul (MTI)--A delegation of the Yugoslav news agency TANJUG visited Hungary on July 8-10. It conducted talks at the Hungarian news agency MTI about the further development of cooperation between the two organizations. The sides renewed their cooperation agreement with the documents signed by Alexandar Bakocevic, director-general of TANJUG, and Dr Erno Lakatos, director-general of MTI. Alexandar Bakocevic was received severally by Gyorgy Acsel, member of the Hungarian Socialist Workers' Party Political Committee and deputy chairman of the Council of Ministers, and Hungarian Deputy Foreign Minister Istvan Roska. [Text] [LD110514 Budapest MTI in English 1735 GMT 10 Jul 81]

CSO: 5500/2253

BRIEFS

SPACE COMMUNICATION ANTENNA BUILT--Bogota, Jul 11 (XINHUA)--Colombian President Turbay Ayala today inaugurated the second space communication antenna in the country and used it to send a message of greetings to King of Spain Juan Carlos. The 10-million-U.S.-dollar antenna, 48 metres in height and 32 metres in diameter, was built by a French company in a communication centre of the National Telecommunication Company in Cundinamarca. The antenna and its supplementary equipment are capable of handling 960 international phone calls and transmitting broadcasts by two foreign T.V. stations simultaneously. With the antenna, telephone communication is set up between Colombia with over 100 countries in the world. The first similar antenna was introduced in the country in 1970. [Text] [OW121520 Beijing XINHUA in English 1500 GMT 12 Jul 81]

CSO: 5500/2253

CUBA

BRIEFS

RADIO COMMUNICATIONS TO EXPAND--Pedro Guelmes, member of the Central Committee and minister of communications, has announced that Cuba will spend a large amount of money in international radio broadcasting and communications during this 5-year period. He was speaking at the ministry's national plenum on the quality of services. The report presented by Guelmes says that in the course of the 5-year period the (Intersat Standard B) station will expand to 22 international channels and the earth station linked to the Intersputnik system to more than 60. The document covers the administration of communications during the past year in a critical spirit, and reports on communications prospects for the 5-year period. It was also learned that telephone services will be expanded in Havana City Province during these 5 years with the creation of the Alamar, San Miguel Del Padron, Plaza, (Santanar) and Regla stations. [Text] [FL152250 Havana Domestic Service in Spanish 2130 GMT 15 Jul 81]

CSO: 5500/2260

TELECOMMUNICATIONS DEVELOPMENT PLAN LAUNCHED

Paris TELECOMMUNICATIONS in French Apr 81 pp 22-25

[Article by Jacques Dunogue]

[Excerpta] Latin America is on the move...in the telecommunications field as well as many others. Peru, a country much of whose territory consists of high mountains, has launched a telecommunications development plan. The importance of this terrain factor has led the authorities there to adopt bold solutions: the building of many microwave stations and frequent resort to the use of satellites.

For many years, France and Peru have actually maintained privileged cooperative ties in telecommunications. These ties have resulted in the virtually permanent presence of a French technical cooperation mission in Lima over the past 10 years, first within the framework of the ITU [International Telecommunications Union], then as a result of bilateral agreements with financing provided by ACTIM [Industrial and Economic Technical Cooperation Association]. Working among the different Peruvian telecommunications entities, the mission has been able to assess on the spot the magnitude of the problems to be resolved to "communicate in Peru." During this period, many Peruvian trainees have also received training in telecommunications and remote data processing.

More than in any other country, the problems of terrain and climate require that the exploitation of its vast natural resources and the coordinated development of its different regions depend upon an efficient communications system. The pre-Columbian civilizations had understood this, but the arrival of the Western influence made them forget this necessity, and work there to date has been oriented toward satisfying pinpoint needs on a case-by-case basis rather than toward the building of a complete network.

That tendency has now been reversed, and Peru has now installed some necessary structures and has started on the road to the development and modernization of its network.

The adoption of modern technical solutions actually constitutes the sole means of satisfying the country's vast communications needs.

In the Footsteps of the Incas

The Peruvian Andes are renowned throughout the world. The innumerable tourists who visit Machu Picchu each year...from the air...have no trouble imagining the difficulties of installing a communications infrastructure in this country, whose mean altitude exceeds 3,000 meters, and whose roads and railway lines must at times cross over mountains higher than Mont Blanc.

Two other regions complete the Andean Sierra. To the west, the Peruvian "coast" is a narrow strip of sand between the Pacific and the mountainous summits. It is a natural north-south communications axis. The influence of the cold Humboldt Current, however, prevents all precipitation there and transforms it into one long desert interrupted only by a few oases. To the north and the east, the Amazon forest, or "selva," flaunts its luxurious vegetation.

Well before the Spanish conquest, the Incas had built a system of roads that had nothing to envy of the European roads of that time. Two north-south axes--one along the coast and the other along the Sierra, enabled their courriers ("chasquis") to carry to Cuzco not only the famous fresh fish but also all the data needed for the hypercentralized management of the empire's crops, reserve stocks of food, and populations. Lateral roads completed the network, which is still in use in some remote parts of the Sierra and whose infrastructure can serve as the basis for the planning of modern facilities (including that of the telecommunications network) to satisfy today's needs, even though these have changed since the time of the Incas.

The coast, which was at that time almost deserted, is today the main region of population growth. Large urban zones have sprung up there, whose growth is being fed by the rural exodus and by a high birth rate.

Between now and the year 2000, for example, the accompanying graph shows that the population of Lima, where much of the country's economic activity is concentrated, is expected to triple.

The demand for telephone facilities should therefore increase in at least the same proportion (probably a low estimate): The number of subscriber lines must increase from 214,000 (in 1978) to more than 900,000 (by 1998) to satisfy three-quarters of this demand and attain a telephone density of around 7 lines per 100 inhabitants by the year 2000.

The Oil of the Jungle

Aside from fishing and agriculture, Peru's economic wealth is based on mining resources (silver, copper...) and oil. Its deposits are located in remote regions: its mines generally at high altitudes and its oil deposits in the tropical forest. The exploration and exploitation of these resources require not only large-scale transport facilities but also the transfer of data in greater and greater quantities; and the radio facilities traditionally used have fast proven inadequate: Access to the general telecommunications network has now become indispensable.

"Rural telephony" is not a vain term in Peru, because the needs are vast: The feeling of isolation, the arrival of piecemeal information on the "lure of the city" is undoubtedly contributing to the rural exodus. Providing the villages, even the remote ones, with telecommunications facilities that can bring them information and enlightenment is therefore a vital necessity for this country.

This same need is making itself felt with regard to the development of new farmland in the Amazon forest.

The telecommunications facilities are operated by two companies: ENTELPERU [National Telecommunications Enterprise of Peru] and CPT [Peruvian Telephone Company]. The operations of these two companies is coordinated by the General Directorate of Communications under the Ministry of Transportation and Communications. These company structures have been built up progressively since 1969.

ENTELPERU, a national enterprise created in 1969 to operate Peru's first satellite earth station installed near Lima, has gradually absorbed all the private companies that were providing telephone service in the provinces. It has been responsible for the building of the interurban microwave network, which it is now putting into operation, and for the building of telephone facilities to provide local service outside of Lima.

ENTELPERU is also responsible for the other telecommunications services (telex, telegraphy) throughout the country and for the operation of the international links. It also represents Peru within the ASETA [Association of Andean State Telecommunications Enterprises].

The CPT, a corporation resulting from the nationalization, in 1970, of the local ITT company that operated telephone service in Lima, is actually under state control: Its ownership is divided between the state (51 percent) and its subscribers (49 percent), all of whom are shareholders in it but are represented on the board of directors by ENTELPERU. Besides providing local telephone service in the "concession zone" that encompasses Lima and its suburbs, CPT currently operates the national and internal switching centers located Lima.

In addition to the operating companies, an organization charged with training and research in telecommunications--INICTEL [National Telecommunications Research and Training Institute]--was created in 1968 under the Ministry of Transportation and Communications.

The Present Network

The interurban network consists mainly of a 3,800 km, 960-channel, analog microwave system, installed gradually beginning in 1970 (the standby channel of this MW system provides TV service). This system is supplemented by several cable communications routes and by several UHF and VHF microwave links. The network interconnects with those of neighboring countries: Ecuador, Bolivia and Chile, and its capacity is being increased to double the number of multiplexers on certain routes.



The other international links are being provided by satellite by way of an earth station located near Lima, with a current capacity of 200 circuits. The installation of a second earth station has been planned, which will double this capacity.

Although telephone switching in Lima is almost entirely automatic (Pentaconta and Rotary exchanges), there are a large number of manual exchanges in the rural areas. Only the largest cities have been favored, in the past few years, by the installation of space-age electronic exchanges.

There are 2,400 telex lines (currently being increased to 4,000) in service in Peru, and telegraph service, which was the first service to link a large number of remote villages (for the most part, single-wire-and-ground-return links) is still a very important one and employs a goodly number of ENTELPERU's personnel.

Terrestrial links would not suffice in all cases to bring an increased number of localities into the network.

Peru therefore launched a satellite-based domestic communications plan, using circuits leased from Intelsat: a quarter-transponder for telephony, plus one-half transponder on a call-up basis for the retransmission of television programs, and a few available telex channels.

Initially, the system provided links between the sole earth station at Lima and three large cities in the Amazon forest: Iquitos, Pucallpa and Tarapoto. Three new earth stations were just put into service at the end of 1980 in the same region, to serve rural zones: Caballococha, Contamana and Chachapoyas. Lastly, a plan financed by the AID for two new rural stations (Juanjui and Tochache [as published--see map]) is currently being actualized. It is also planned to connect to a private station at Andoas into the system.

Now in its final stage, this system will provide 86 telephone circuits, bringing telephone service to regions where a conventional solution would have taken many years to materialize.

New Technologies

The advent of digital technologies has provided some very advantageous solutions from the economic and technical standpoints for the expansion of networks like that of Peru.

Thus, 30-channel digital microwave links are already in use in rural zones there.

To achieve an increase of 150,000 lines in the Lima network (an increase of over 60 percent), time-division technology was adopted. On the one hand, it minimizes the need for new construction (theoretically, no new interexchange cable is necessary); and on the other hand, the capability it offers for using remote subscriber connecting sets is a highly appreciable one in cities like Lima, where the population density is relatively low.

Another advantage of digital technology was that it facilitated the integration of other services into the same network; this capability is extremely advantageous, particularly for data transmission. The latter is expected to grow rapidly in the coming years, and conventional facilities (leased analog circuits) are likely to become inadequate to satisfy the demands of banks, oil companies, mining companies airlines... Here again, new solutions, such as data packet transmission, are likely to be economically attractive ones.

At the completion of the 150,000-line expansion plan, the Lima network will have 390,000 installed lines. By the end of the century, CPT expects to be able to satisfy the total estimated demand of 1,170,000 lines.

Nevertheless, as of now, there remains much to be done for the country as a whole. The beginning of a real telecommunications development dates back only to 1968; before then, only immediately resolvable needs were satisfied. This late start, together with the difficulties of communication there, compelled the responsible ministry as well as ENTELPERU and CPT to adopt the most advanced technological solutions.

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BRIEFS

KUWAITI, QATARI TELECOMMUNICATIONS SATELLITES--Kuwait and Qatar have both announced plans to construct telecommunications satellite tracking systems next year, before the first Arab satellite, Arabsat, is boosted into orbit in 1983. In a report from Doha, the OPEC News Agency said that Qatar's new station, its second, would facilitate direct communications with the US; at present these are routed through London. The existing station, which has 960 channels, 140 of them operational, scans the skies over the Indian Ocean, one of the earth's three telecommunications satellite zones. The new station, sited 45 kilometres south of Doha at Mukeinis, will scan the Atlantic Ocean. The third zone is the Pacific. The new station will be built next year and become operational in 1983, when the first Arabsat is due to be launched by the US space shuttle "Columbia." In all, three Arab telecommunications satellites are planned, two of them going into geostationary orbit over Libya. Before then, Kuwait will have completed construction of a satellite ground station, OPECNA said. But, apart from stating that the station would provide training in advanced telecommunication techniques, it gave no details. [Text] [Paris AN-NAHAR ARAB REPORT & MEMO in English No 26, 29 Jun 81 p 9]

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NATION OBSERVES INTERNATIONAL TELECOMMUNICATIONS DAY

Baghdad AL-JUMHURIYAH in Arabic 16 May 81 p 10

[Article by Nawwal al-Wa'ili: "Iraq Is Making a Leap in Its Communications with the World"]

[Text] Tomorrow, Sunday, Iraq, along with the other countries of the world, will be celebrating International Telecommunications Day. This celebration comes at a time when telecommunications have realized great development in our country, proceeding from the revolution's faith in the importance of these installations in linking Iraq to various areas of the world, in view of the economic, political and social benefits they entail, which are reflected in the entire course of development.

This development has realized great benefits for citizens and government organizations in telephone and telegraph communications and radio and television broadcasting, with the result that Iraq has become one of the foremost countries in the region in this field.

On this occasion, AL-JUMHURIYAH met with Mr 'Abd-al-Sattar Firman, undersecretary of communications.

[Question] In past years, great development has taken place in telecommunications between Iraq and the world; what is the scope of this progress in comparison with other countries in the region?

The undersecretary: Contact with the outside world used to be restricted to the use of unreliable HF telecommunications equipment and a few lines operating with specific centers in the world. Numerous projects, of which the final segment is underway now, have been carried out to link Iraq up with the world in a rapid reliable means of communication. These projects are:

1. Construction of an international communication exchange with a capacity of 550 lines; this has been functioning since 1973.
2. Construction of the two-antenna ground station project, one operating the Intelstat satellite over the Indian Ocean and the other operating the satellite over the Atlantic Ocean, allowing rapid communication with the world. The project has been expanded and developed a number of times since it was put in service in 1973 in

order to accommodate telephone, cable and television transmission traffic to respond to the changes the International Satellite Organization has made.

3. Construction of the microwave linkup project between Iraq and Kuwait, with a capacity of 960 channels, used for purposes of telephone, cable and television transmission traffic between the two countries. It is also used to channel traffic from, to and via Iraq to neighboring countries.
4. Construction of a microwave linkup project between Iraq and Syria with a capacity of 960 telephone channels for purposes of telephone, cable and television transmission traffic. It will also be used to channel traffic from, to and via Iraq to neighboring countries.
5. A coaxial cable project has been built to link up Iraq with Kuwait, and work is underway now on constructing a linkup to the project inside Kuwait.
6. There is a microwave project to link up Iraq with Turkey on which construction will soon be inaugurated.
7. A project will be carried out for a microwave hookup between Iraq and Jordan which will assure the channeling of telephone, cable and television transmission traffic. It is hoped that this will be completed in a short period.
8. There are studies to carry out a project to hook Iraq up with Saudi Arabia.

Let Us Deal with the International Organization

Question How is Iraq linked to the world via satellite? Are there specific satellites with which we deal?

The undersecretary: Iraq is hooked up to the world by satellite by using the ground station which operates on two antennas. The organization through which the Iraqi ground station operates is called the International Space Communications Organization. There is also a study to build a ground station operating with the Int. Sputnik satellites.

The Arab Satellite

Question What is the reason for the delay in launching the long-awaited Arab satellite?

The undersecretary: The delay in launching the Arab satellite may be attributed to the fact that the study establishment of the project it requires is so immense and important that it will take time for the satellite to respond to the needs of the Arab satellites.

Question Following the launching of the Arab satellites, what technical resources will it provide for telephone communications, television and radio transmission and cable traffic?

The undersecretary: The Arab satellite will provide telephone and telegraph communications and television and radio transmission in capacities responding to the needs of the countries taking part in it.

Question Does the fact that Arab countries follow diverse communications systems influence the development of Arab cooperation in the field of telecommunications?

The undersecretary: The fact that Arab countries follow diverse communications systems does not influence the development of Arab cooperation in the field of telecommunications, because of chances for providing the requisite hookup systems.

Requirements of the Nonaligned Summit

Question The nonaligned summit will require rapid, diverse and broad communications. What measures have you taken to realize this?

The undersecretary: The necessary steps have been taken to meet the requirements of the nonaligned summit to be held in Baghdad next year. The ground station has been expanded and work is now underway on building and improving the Baghdad telephone system with the use of communications in which reliance is put on the electronic system. Another contract was recently signed to provide for the requirements of this conference.

Question Following the conclusion of the summit, will these technical resources be used to serve citizens, and how will this take place?

The undersecretary: Yes, the resources being constructed for the purposes of the now aligned summit conference will be used to respond to citizens' demands on the one hand and to improve the local and international system on the other.

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EXTENSIVE EXPANSION OF COMMUNICATIONS, TRANSPORTATION PLANNED

Baghdad BAGHDAD OBSERVER in English 29 May 81 p 2

[Text]

The 1981—1985, National Development Plan will aim at a comprehensive and large-scale expansion in the communications and transport sectors in the economy announced Mr. Sa'doun Gheidan, member of the Revolution Command Council, Deputy Premier and Minister of Transport and Communications, in a statement to the Iraqi News Agency yesterday.

Mr. Gheidan explained that among the principal projects currently under implementation include expansion of telephone communication services which will raise telephones per head from the current ratio of 3 telephones for every 100 people to 10 for every 100 by 1985, he added.

He further pointed out that the plans of the Ministry aim at reducing the gap between telephone services in provincial centres and districts and subdistricts.

The minister said that alternative telephone systems — microwave and coaxial cable systems — will be used thus ensuring more than one substitute to communication lines and that the system of international communications with Arab and other countries will also be expanded.

As regards to inter-city passenger transportation the Minister explained that the plan will expand the activities of State Establishment of Passenger Transporta-

tion so that by 1985 it will carry some 13 million passengers as compared with the present figure of 3 million. The fleet coaches and buses operating between Provinces will be increased to 700 by 1985, he added.

City public transportation will be also expanded so that by 1985, state buses will carry 750 million people, Mr. Gheidan explained. He noted that during 1980 alone, 600 new buses were put into service and another 800 new buses waiting delivery will also be put on the roads as soon as they are received.

The plan also provides for substantial expansion of overland transportation of goods and commodities. Mr. Gheidan said more than 3000 haulage trucks will be purchased during the next five years, enabling the states sector to increase its haulage capacity from the present 5 million tons per year to 16 million tons by 1985.

The plan also caters for the expansion of river transportation. With the Baghdad-Basra river transportation project, regarded as the nucleus for further expansion already approved. He noted that the plan will supplement this project with the construction of riverside wharves in Baghdad, Kut and Amarah. Moreover, various commissions will examine further expansion

of this field in the next five years, he added.

Both passengers and goods air transportation will be expanded in the next five years, Mr. Gheidan explained. The Iraqi Airways fleet will be augmented by new planes, and new airports will be built.

By next year, postal services will cover all districts of the country, and a new postal college will be opened, the Minister added.

As regards railways, Mr. Gheidan said that by 1982, the Baghdad-Hasiba line passing through Falluja-Ramadi, and Ana, stretching up to the Syrian border, will be completed. Studies are underway to assess the possibilities of opening new lines between provinces and a circular line around Baghdad, he added.

The field of new transportation has already witnessed fast expansion which is evident in the manifold increase in the number of operation cargo ships operating in the Iraqi fleet.

Over recent years, the Iraqi fleet increased from two 6000 ton capacity ships to the present 14 ships with total capacity of nearly 114,000 tons. Mr. Gheidan pointed out and added that future expansion is still planned for both in the number of ships and in the unloading capacity of Iraqi ports in addition to widening the sea lines of the Iraqi ships.

MINISTER OF COMMUNICATIONS DISCUSSES PROJECTS

Kuwait AL-QABAS in Arabic 29 May 81 p 2

[Article: "'Isa al-Muzyidi, Minister of Communications, in Press Conference: 25,000 Lines for First Phase of Mobile Telephone Network and 100,000 Lines for Expansion Phase; Studies Continue in Order to Develop Job and Technical Performance; Kuwait Takes Part in Setting up Arab Artificial Satellite; We Will Shortly Embark on Television Data Service for Actual Work Purposes"]

[Text] 'Isa al-Muzyidi, the minister of communications, has said that the ministry is eager to provide to the citizens and to all sectors of the public the different services that fall within its activities in the various spheres. He has also asserted that the first phase of the mobile telephone network includes 25,000 lines and that the expansion phase includes 100,000 lines.

In a press conference held yesterday morning, the minister added that the ministry is exerting efforts to develop and improve the various services, be they telex or postal services or services connected with communication affairs generally.

Proceeding on the basis of this principle, the ministry has employed the assistance of consultants to modernize the country's telephone network so that it may meet the requirements of the modern age and may cover the various spheres. In light of the studies conducted by the consultants, the ministry is currently taking several measures to implement the system of preventive maintenance in order to preclude the occurrence of breakdowns. In the light of these studies, the ministry has also examined the need for new telephone exchanges and networks and postal offices in the various parts of the country so as to meet these various needs and to be able to keep up with the construction and population development and with all aspects of progress in our daily life.

Facing Experiences

Al-Muzyidi also said that it is natural for the Ministry of Communications, since it is a service ministry, to face some experiences and negative aspects which can be put to advantage in the future through the application of advanced systems and the construction of networks with greater capacity. This is what has actually happened in regard to the network of telephones installed in cars in which we will avoid those experiences incompatible with our daily needs.

As for the other services, the ministry seeks to provide telephone service in all parts of Kuwait and has drawn up a program which will be implemented gradually with construction activity in the various areas and in coordination with the other service ministries so that we may avoid difficulties and breakdowns in underground lines as a result of errors or of other factors.

The minister added: In view of Kuwait's prominent position among the advanced developing countries, it is eager to provide the means of modern communication and information. In line with this principle, the ministry will supply in the near future television information service used by some advanced countries at present. This service is useful in providing various data, statistics and news pertaining to the individual's daily life, such as data concerning businessmen, educators and athletes or the latest political, social or financial news. This is done through the use of an ordinary house television set and a central computer linked to television sets either by telephone channels or by ordinary electricity cables.

Development of Means

The minister also noted that at the international level, the ministry is eager to develop the means of communication with the various countries of the world because of the characteristics distinguishing Kuwait's population structure from that of other countries, considering that this structure includes numerous nationalities from fraternal Arab countries and from other friendly countries. This is why systems of international communication have been developed and used with the various countries of the world and why the number of telex channels has been increased in order to facilitate the tasks of businessmen and to supply information and data at various levels. At the same time, Kuwait is participating with other Arab sisters in setting up the Arab artificial satellite project to serve the various forms of communication among the Arab countries and to exchange cultural, informational and other television programs in a concerted manner. When this major Arab project is completed the inhabitants of Kuwait may view television programs transmitted from other television stations (at the time of transmission) and the other countries may see what the Kuwait television station transmits.

The minister added that Kuwait has been a forerunner among the area's countries in employing and using the mobile telephone system (car telephones). It started this service in the early 1970's and it is still exerting efforts to develop it so that the largest number possible of people may benefit from it.

The minister further said that the ministry's future plans include developing the postal service, increasing the number of post offices in the various parts of the country and improving the collection and delivery of mail to the various installations, establishments and citizens, both as individuals and as groups.

Next week, the ministry will send, by various means, forms to the citizens who use the telephone and other services with the aim of modernizing its special data concerning these citizens so that subscribers may be billed on a periodic monthly basis. We will have then simplified the previous system in which the subscribers were billed only every 3 months. The minister urged the subscribers to cooperate with the ministry by supplying the information asked of them on this form and by filling in this information on the part of the form designated for this purpose and leaving the other part for the ministry officials to fill.

He added that it has become evident that some of the information possessed by the ministry concerning a number of subscribers is old and needs to be updated to guarantee that bills reach the subscribers easily and as fast as possible.

Special Means

In the course of his answers to the journalists' questions, the minister of communications said that insofar as the Kuwaitis who have failed to pay the ministry's charges are concerned, there are special means to demand their payment of their bills. If they fail to pay, they will be first notified. If they still fail to pay, they will be warned and if they still fail to respond, their lines will be cut off and the ministry will resort to legal means to demand payment of the bills.

As for the non-Kuwaitis, the new decree concerning the posting of a security deposit to guarantee payment of the ministry's charges will apply to them. This decree applies only to new non-Kuwaiti applicants working in the private sector. The decree applies to old subscribers only after the ministry demands payment of overdue bills, should such bills exist, and only if they fail to make the payment after they are warned. If their lines are cut off, they will be considered new applicants. As for the alternatives demanded of new applicants from the private sector, they call for the applicant for a telephone line to present a security note from a bank or from the party for which he works, be it a Kuwait establishment, company or individual. Should the applicant be unable to present such a note, he has to deposit with the ministry a sum of 500 dinars from which to deduct payment of the bill in case the applicant is late in making his payment or in case he intentionally fails to pay.

Answering a question on the reason for the delay in providing telephone service to some new areas, such as al-Ruqa'i for example, the minister of communications said: In view of the ministry's close cooperation with the other service ministries carrying out civil works, such as laying underground lines and installing manholes, for example, the ministry cannot lay the underground telephone lines until completion of the civil works by the ministries concerned and until it is made certain that these works comply with the ministry's specifications because the job of the Ministry of Communications is to extend the telephone lines and not to carry out civil works. This applies to numerous areas, including the area of Bayan.

The minister added that out of its eagerness to provide telephone service to these areas, the ministry has adopted the policy of setting up telephone booths in them. The ministry is also eager to set up such booths in numerous other areas, such as expressways and other areas.

Mobile Service

Answering another question, the minister stated that the ministry is eager to provide mobile telephone service (car telephones) and to meet the current and new applications by setting up a modern network with a capacity of nearly 25,000 lines as a first phase and it can be expanded to nearly 100,000 lines. In view of the importance of this project and of its large dimensions and in view of the fact that [the requirements needed for it] are not available in any country at present, considering that these requirements are not like goods displayed in showrooms which

can be purchased, brought in and installed [immediately], this project requires some patience on our part so that we may overcome some difficulties and may benefit from the experiences we have encountered. We will have thus acquired a more advanced network.

Answering the journalists' questions, the minister of communications said that when the various telephone networks are linked with each other and when the old networks are replaced by new electronic networks, this system will become general and the subscriber will be able to acquire various data and statistics through the telephone service, considering that this kind of service is connected with a central electronic computer linking the networks with each other.

The minister added: Insofar as the sums appropriated in the past budget to modernize the telephone network are concerned, these appropriations will be used in stages and according to the ministry's program for the coming period. The ministry will make use of its prior study on this program.

Arab Artificial Satellite

As for the Arab artificial satellite, the minister said that a decision on it was supposed to be made sometime ago. But it became evident after a reassessment of the project that its costs, set by the initial studies at \$100 million, exceed this sum and so the General Assembly of the Arabsat Organization asked that its capital be raised. This was done in Amman last April, the capital was raised to \$200 million and the necessary measures were taken. A bid has been awarded to a French-U.S. firm to implement this project which will take 30 months to complete. A number of artificial satellites will be launched to cover the complete network.

The minister of communications has said that reevaluation and studies are going on in the ministry to develop and improve job and technical performance. We will award those who excel in performing the tasks entrusted to them and will bring to account those who are negligent in their work, after making sure that they are negligent. He added that these words apply to the various leadership and employee cadres in the ministry.

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